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ABSTRACT

The booklet is designed to acquaint the physical education specialist, classroom teacher, special educator, and administrator with the importance of physical education for handicapped students. An initial chapter addresses movement's effects on cognitive, affective, and psychomotor development. A second section outlines definitions of the major handicapping conditions, while the third chapter provides general teaching suggestions and specific ideas for teaching variously handicapped students. Modifications in aquatics, dance, bowling, archery, badminton, and outdoor pursuits are listed for specific handicaps. Considerations involved in least restrictive placement are followed by a discussion of screening procedures and evaluation instruments. A final section touches upon forms, equipment, and resources. (CL)

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ADAPTING THE PHYSICAL EDUCATION PROGRAM

FOR THE STUDENT WITH SPECIAL NEEDS

A Supplement to the

K-12 Physical Education Curriculum Guide

Department of Education

Province of Manitoba

1982

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INTRODUCTION

The primary aim of any physical education program is:

> to help students develop and participate in a purposeful, physically active lifestyle, which will enable them to experience a more enjoyable quality of life - today and tomorrow.[1]

Physical education may be defined as the development of:

a) physical and motor fitness;

b) fundamental motor skills and patterns;

c) skills in aquatics, dance, individual and group games, sports, including intramural and lifetime sports, and outdoor pursuits.

It may also include special physical education, adapted physical education, movement education and motor development.

Every student in the province should receive an education which aids in the achievement of his/her full potential. Physical education is an integral part of that educational process. Thus, the physical education program must be planned according to the identified abilities of the student, and must focus on the realization of each student's maximum potential.

It is essential that educators learn to interact with all students. In her text, Adapted Physical Education and Recreation - A Multidisciplinary Approach, Sherrill provides us with a philosophical base on which to build our interactions with the student with special needs.

> Each child is unique regardless of the label that is attached, often primarily for the convenience of others. These children have the same needs that you have, to love, and be loved, to learn, to share, to grow and to experience, in the same world you live in. They have no separate world. They have the same right to fall, to fail, to suffer, to decry, to cry, to curse, to despair. To protect them from these experiences is to keep them from life. Only they can show or tell you what is possible for them and, in the end, they must do for themselves. We can supply alternatives, the possibilities, the necessary tools - but only they can put these things into action. Each has a potential for becoming, not what we desire him/her to become, but what is within him/her to become. It is important to remember that all children have a right to honesty about themselves, about you, and about their condition.[2]

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[1] Manitoba Department of Education, K-12 Physical Education (Winnipeg: Manitoba Department of Education, 1981), p. 3.

[2] Claudine Sherrill, Adapted Physical Education and Recreation: A Multi-Disciplinary Approach, 2nd Ed. (Dubuque, Iowa: Wm. C. Brown Company, 1976), p. 26.

Each student is a unique individual and, therefore, has special needs. Just as instruction in the regular physical education program is adapted to the individual needs, abilities and interests of students, so, too, should there be program adaption when teaching a student with a handicapping condition.

There is no substitute for individual attention to students who require special assistance with their learning. This individual attention enables the teacher to identify and maximize each opportunity for learning. In addition, some students have needs which require extensive modifications to the learning environments. It is the general purpose of this supplement to provide some guidance for modifying teaching-learning situations in relation to students' special needs.

The specific purposes of this supplement are:

1. to outline briefly and to define a cross-section of handicapping conditions;

2. to stimulate teachers' awareness of the student with special needs;

3. to develop an initial resource list of ideas for adapting the physical education program;

4. to provide a bibliography of current material to aid the teacher in a better understanding of the student with special needs.

Because it is necessary to assess each student's abilities individually and to program accordingly, the information included will be of a general nature. The contents are addressed to the physical education specialist, classroom teacher, special educator and administrator.

PART 1

THE IMPORTANCE OF HUMAN MOVEMENT

Movement is fundamental to the existence of every human being, and ranges from the pumping of the heart as a sustaining function to the large muscle activity which is responsible for the movement of the limbs. Movement has an important role in the student's development.

Recently, an increased emphasis has been placed on motor development in the educational process, as a primary facilitator of the student's cognitive, affective and psychomotor development. Each of the domains is interrelated; failure to develop at normal rates in any of these domains may negatively influence the rate of development in one or both of the remaining areas. For example, a student experiencing difficulty with motor skills may experience difficulty in reading, while also dreading play periods or recess because he/she will be excluded from activities or chosen last in a game situation.[3]

COGNITIVE DEVELOPMENT

Physical educators can aid in the reinforcement of academic skills of school-aged students through cooperation with the classroom teacher. The physical educator should attempt to structure activities that reinforce classroom work.

Physical education can play an important role in enhancing cognitive skills by refining those perceptual skills that are necessary for successful performance in an academic setting. For example, students vary widely with respect to receptive language skills. Physical educators can cooperate with the classroom teacher in providing movement experiences which will help to reinforce the meaning of words. The student can experience nouns, verbs and adverbs on the playground by being encouraged to name the skills being developed, the games being played and the equipment being used. In addition, movement games such as charades enhance word comprehension.

AFFECTIVE DEVELOPMENT

Limited research has been conducted in the area of affective learning. However, available studies indicate that a repertoire of efficient motor skills can play a significant role in students' affective development.

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[3]Bruce McClenaghan, Mainstreaming the Handicapped in Physical Education - Who's Handicapped? (unpublished, February, 1981).

For example, McClenaghan states: "It is important that young children be exposed to some degree of success and failure throughout their development. A child that never fails becomes overburdened with an inflated ego and has difficulty coping with failure. In contrast, a child who fails continually will tend to magnify each failure and develop a feeling of worthlessness."[4]

Cratty has noted that good performers are socially more secure and outgoing. He also indicated that at least average physical ability is necessary for social acceptance.[5]

PSYCHOMOTOR DEVELOPMENT

Motor development evolves in a progressive manner from the moment of birth. The newborn's movements are mainly reflexive and involuntary. As the infant gains voluntary control of the musculature, many of the reflexive movements are suppressed. Voluntary movements, at first, are highly uncoordinated. One might consider the movements as being without purpose, but they do represent crucial information-gathering. As the child grows, and in proportion to the available opportunities for practice, these movement experiences are integrated and refined, becoming increasingly sophisticated as the child is able to combine movements of individual body parts into a coordinated movement pattern utilizing the entire body.

The childhood period of two-seven years is the critical time for developing efficient movement patterns. In the past, most people thought that the normal play process would enable children to develop and refine fundamental movements. The play process of some children included some of these experiences; however, it proved incorrect to assume all children would develop mature patterns without instruction.

If a child fails to develop efficient movement patterns during the early childhood period, it becomes increasingly more difficult to acquire the mature pattern with each year, for the following reasons:

1. As students grow older, their opportunity for this type of movement is limited.

2. Students tend to be negative toward the individual with inefficient motor skills in play situations.

3. Students have a fear of performing skills unsuccessfully, thus their practice is limited.

4. Incorrect motor patterns become habits that are difficult to break.

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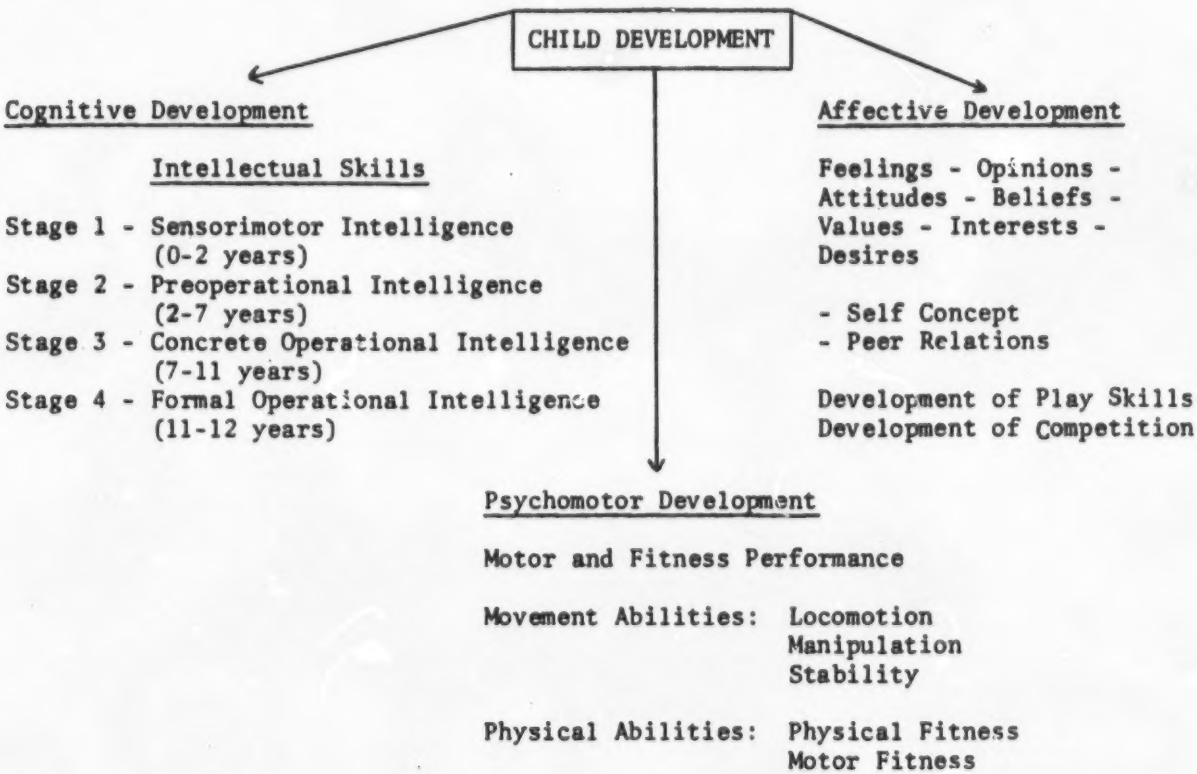
[4]Bruce McClenaghan, Mainstreaming the Handicapped in Physical Education - Who's Handicapped? (unpublished, February, 1981), p. 5.

[5]Ibid., p. 6.

Some students take a longer time than others to achieve a mature level of functioning. Although with each advancing year it becomes increasingly difficult to achieve a mature pattern, it is possible to do so with a well-planned program. These patterns become the basis for more complex sports skills in which the student will participate. It is vital, therefore, that students be screened at an early age, and that remedial activities be provided if necessary.

A total physical education program should accommodate social, physical and psychological development. For example, Arnheim and Sinclair state: "Ideally, if physical education were carried out effectively in all schools, special programs to remedy clumsiness would, for the most part, not be needed."[6]


CHILD DEVELOPMENT
Cognitive Development
Intellectual Skills
Stage 1 - Sensorimotor Intelligence (0-2 years)
Stage 2 - Preoperational Intelligence (2-7 years)
Stage 3 - Concrete Operational Intelligence (7-11 years)
Stage 4 - Formal Operational Intelligence (11-12 years)
Affective Development
Feelings - Opinions - Attitudes - Beliefs - Values - Interests - Desires
- Self Concept
- Peer Relations
Development of Play Skills
Development of Competition
Psychomotor Development
Motor and Fitness Performance
Movement Abilities: Locomotion
Manipulation
Stability
Physical Abilities: Physical Fitness
Motor Fitness

[6]Daniel D. Arnheim and William A. Sinclair, The Clumsy Child (Toronto: The C. V. Mosby Company, 1979), p. 47.

PART II

THE STUDENT WITH SPECIAL NEEDS

To assist the classroom teacher or physical educator in understanding terminology that may be used to describe students with special needs, this section will provide some definitions of handicapping conditions frequently encountered in schools. All definitions will have limited application to individual student needs. Therefore, it is important to view all terminology only as an aid or guideline to effective programming, and not as a label with which to categorize the student.

DEFINITIONS

Mental Retardation

Mental retardation refers to significantly sub-average general intellectual functioning, existing concurrently with deficits in adaptive behaviour manifested during the developmental period. Significantly sub-average refers to performance which is more than two standard deviations below the mean of tests used.

Educable Mentally Retarded:

- has potential for personal, social and emotional growth, leading to independent, productive living;
- usually between two and three standard deviations below mean of tests used.

Trainable Mentally Retarded:

- intellectual ability is one-third to one-half below that of an average student of same chronological age;
- usually three standard deviations below mean of tests used.

Severely Mentally Retarded:

- intellectual ability is approximately two-thirds below that of an average student of comparable chronological age.

Behaviour Disorders

When defined in terms of functioning at school, a student would be said to be behaviour disordered if his/her behaviour is so inappropriate or destructive to him/herself or others that it interferes with receiving all or part of his/her education in the regular classroom situation.

Specific Learning Disabilities

A learning disability is a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia.

Visually Impaired:

- A student is considered visually impaired if, after all possible visual correction, he/she requires special materials and services, but is able to use visual media (including print) as his/her primary method of learning.

Functionally Blind:

- a student who will be unable to use print as his/her reading medium;
- instruction in Braille will be essential.

Legally Blind:

- a student whose visual acuity is 20/200 or less in the better eye after correction.

Partially Sighted:

- a student whose visual acuity falls within the range of 20/70 to 20/200 in the better eye after correction;
- a student who cannot read 18 point print at any distance.

Speech Impaired:

Communication disorders may be exhibited by one or more of the following:

- a language disorder characterized in terms of comprehension and/or use of words and their meanings, grammatical patterns and speech sounds;
- a speech disorder characterized by difficulty in producing speech sounds, maintaining speech rhythm and controlling vocal production;
- a speech or language disorder characterized by difficulty in receiving and understanding speech without auditory training, speech and language remediation, and/or a hearing aid.

Hearing Impaired:

- is one who exhibits a hearing loss which interferes with his/her acquisition or maintenance of auditory skills necessary for the development of speech or language.

- Educational placement will be determined by student's communication ability.

Physical Handicap:

- students whose body functions or members are so impaired, from any cause, that they cannot be educated adequately or safely in regular, public school classes without the provision of special services.

- Physically handicapped may refer to conditions such as:

    1. muscular or neuromuscular handicaps which significantly limit the ability to move about, sit or manipulate the materials required for learning;

    2. skeletal deformities or abnormalities which affect ambulation, posture and body use necessary for school work.

Multi-handicapped:

- students who have some physical or sensory handicap and one or more handicapping conditions which are educationally significant to the extent that they cannot respond to regular instruction techniques provided for students in other educational programs for the physically or mentally handicapped.

Other Health Impaired:

- any condition resulting in reduced efficiency in school work because of a temporary or long-term lack of strength, vitality or alertness; e.g., some congenital or acquired cardiovascular diseases, asthma, anemia, hemophilia, leukemia, diabetes and epilepsy.[7]

Differences between the so-called "normal" student and the student with special needs occur in one or more of the following categories:

1. neuromuscular or physical characteristics

2. sensory abilities

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[7]Ernie Bundschuh et al., Project Dart, Adapting Physical Education Activities (University of Georgia, 1980), p. 5-8.

3. mental characteristics
4. social or emotional behaviour
5. communication abilities[8]

Morris, in Elementary Physical Education, has listed the similarities between these two groups.[9] They are as follows:

1. Both groups are of the same chronological age.
2. Both groups move to some degree and at some level of developing proficiency.
3. Both groups process information.
4. Both groups have self-concepts that need to be enhanced through movement experiences.
5. Both groups have feelings.
6. Both groups need attention.
7. Both groups have common movement goals: to improve their motor proficiency.
8. Both groups include students who vary in their individual movement ability.
9. Both groups need to feel wanted and loved.

Within each of these areas of similarity are factors which the educator must consider when building and adapting the program.

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[8]William F. Straub, The Lifetime Sports-Oriented Physical Education Program (Englewood Cliffs, N.J.: Prentice-Hall, 1976), p. 109.

[9]G.S. Don Morris, Elementary Physical Education: Toward Inclusion, 2nd. Ed. (Salt Lake City, Utah: Brighton Publishing Company, 1980), p. 329.

PART III

GUIDELINES FOR WORKING WITH THE STUDENT WITH SPECIAL NEEDS

It is easy, or perhaps idealistic, to think that all students will come to the classroom with a good repertoire of basic skills. Because basic skills are the foundation of any good physical education program, it is essential that all students, despite the developmental lag they might have, be given opportunities to become proficient movers. For this reason, it is essential to assess carefully the student's motor abilities. It might be helpful to have a checklist.

The ✓ mark indicates that the student is able to perform the skill listed in the activities being used in the physical education program.

Child's Name	Throwing	Catching	Kicking	Running
Susan	✓	✓	✓	✓
John	✓			✓
Mary			✓	✓
Robert	✓			
Billy			✓	✓

(An additional checklist is included in Part VI.)

This informal assessment is helpful in:

1. deciding the student's entry level;
2. assisting the teacher to develop some short-term and long-term goals for the student;
3. diagnosing the need for a more formal assessment.

In a more detailed assessment, it is necessary to administer a variety of tests on an individual basis. (This area will be referred to in more detail in the section on Screening.) With this type of testing, it is possible to determine how to aid the student in the development of the deficient areas and the appropriate methods to use in modifying or adapting the program.

The teacher can be a key person in determining the success of the student with special needs. The teacher who is willing to work tirelessly in searching for ways to challenge each student will find great rewards as the student begins to show progress in an area once far beyond reach. Teachers working with the student with special needs should attempt to expand in the following areas.

- knowledge of quality physical education
- an understanding of the developmental needs of children
- creativity
- good self-concept
- a high, but realistic, aspiration for all students in the school

TEACHING SUGGESTIONS

The American Alliance of Health, Physical Education, Recreation and Dance (A.A.H.P.E.R.D.) has developed some teaching techniques which may be helpful when dealing with the student with special needs. The list below pertains to a multitude of handicapping conditions.

- Progress slowly, offering activities that may be familiar to the student. Repetition is important in reinforcing learning.
- Introduce new activities at the beginning of the period before the student gets tired.
- Give clear directions.
- Be enthusiastic.
- Be kind, positive, yet firm in your approach.
- Place your hands on the student, directing the desired movement patterns; e.g., place your hands on the arm of the student to illustrate the throwing pattern. This is called <u>coaction</u>.
- Use touch to relate more effectively to the student the part of the body which is to be used.
- Use visual aids in combination with other stimuli. Demonstration with verbal explanation is effective when working with the student having special needs.
- Students are great imitators. Teach by indirection, as well as direction.

- A few common encouraging signals should be understood by all students: clapping hands, raising hands, etc.

- Consider the chronological age of the student when selecting activities.

- Select games for their recreative value in addition to their physical, social and mental values.

- Select games which are within the skill range of the students.

- Give few rules to begin a game. Introduce rules as the skill level of the student progresses.

- Let the students compete with themselves.

- Modify the rules if necessary for the inclusion of all students.

- Give the students goals which are realistic and in which they can have some measure of success.

- Realize that if discipline is a problem, it is possible that the activity is too difficult to understand, requires too much skill, or has too many verbal instructions.

- Base new activities on previously-learned experiences whenever possible. Avoid presenting too many ideas too quickly.

- Think in terms of experience and participation. Give plenty of praise! Consider the individual's specific needs in terms of how they affect teaching methods and approaches.[10]

TEACHING SUGGESTIONS FOR SPECIFIC HANDICAPPING CONDITIONS

There are conditions which, because of their specificity, will affect how an activity may be taught.

Physically Handicapped

Physically handicapped students can participate in most physical education activities with appropriate modifications.

Teaching Suggestions:

1. Obtain periodic medical approval of the student's program and plan accordingly.

2. Obtain medical recommendations for resumption of activity after a student is absent because of illness or injury.

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[10]Ernie Bundschuh et al., Project Dart, Adapting Physical Education Activities (University of Georgia, 1980), p. 9-11.

3. Plan so that every student has the opportunity to participate as much as possible.

4. Be aware that these students require more individual and hazard-free space for activity.

5. Provide frequent rest periods for those with limited endurance.

6. Be aware of the dangers of falling, twisting, bending and lifting.

7. Teach those with orthopedic conditions to fall correctly from their crutches or wheelchairs or unsupported positions.

8. Substitute sitting and lying positions for standing when necessary.

9. When necessary, have students on crutches throw underhand rather than overhand.

10. Allow additional stops in games requiring running or movement.

11. Permit substitution for particular aspects of running games.

12. Encourage peer participation and assistance.

13. Attach the upper edge of a sheet or net to wall or backboard and lower edge to student's location for retrieval of ball when working with target or basket activities.

Learning Disabled

Remember that students who have learning problems may have difficulties processing verbal instructions, remembering the sequence of instructions, interpreting visual signs and markings, and relating to activity space. A highly structured and clearly defined program is helpful.

Teaching Suggestions:

1. Give instructions one at a time, speaking slowly and clearly.

2. Use short, simple sentences and face the students when giving instructions.

3. Eliminate as much extraneous auditory and visual stimuli as possible.

4. With the students, plan a manual signal to gain attention; e.g., hand raised, finger on ears, etc.

5. Use imagery appropriate for age and activity.

6. Use multisensory cues, such as pointing in the direction you are talking. Have the children do the same.

7. Set limits of acceptable behaviour with individual students.

8. Do not exclude students from activity.

9. Plan so that the student can have many successful experiences, particularly at the beginning of the year.

Speech Impaired

The student with speech impairment should be able to work in regular physical education activities.

Teaching Suggestions:

1. Use words familiar to the student when giving instructions.

2. Individuals who cannot solve language problems may be unable to follow instructions, even if they have a good vocabulary, and, therefore, may need a breakdown of the instructions into smaller steps.

3. As speech improves, encourage students to use newly acquired skills.

Deaf and Hearing Impaired

Communication and balance are of major concern to these students. Because of their condition, a few program and equipment adaptations will be necessary.

Teaching Suggestions:

1. Place the student where the teacher's face is visible.

2. Establish eye contact when initiating activity.

3. Avoid using loud tones or exaggerated lip movements in speaking. Speak naturally. Do not over-emphasize speech.

4. Give important instructions from a position close to the child.

5. Use many visual aids and demonstrations.

6. Encourage students to follow example of classmates.

7. Be aware that balancing problems may pose difficulties to these students.

8. If balance is a problem, help the student select activities with a minimum of spinning movements and/or sudden changes in direction.

9. Keep your hands away from your mouth when speaking. Stand still and in a place where shadows are least likely to be on the face.

Visually Impaired and the Blind

A physical education program for the student with severe visual problems requires a considerable amount of adaptation.

Teaching Suggestions:

1. Familiarize the student with the immediate environment before beginning any activity. Emphasizing verbal communication adds greatly to the performance of blind players.
2. Do everything possible to minimize eyestrain. Provide maximum lighting.
3. Encourage the visually handicapped to serve as peer-leaders for the blind.
4. Attempt to improve other senses, especially auditory, kinesthetic and tactile senses.
5. Always address the student by name.
6. Keep things arranged in orderly fashion so that participants do not fall over them, and can find them when necessary.
7. Enlarge target objects.
8. Use brightly coloured objects.
9. Be aware of the possible need to modify activities that require a sudden change of direction.
10. In most vigorous activities, such as running, the blind will require one-to-one attention, which can be provided through volunteers or a teacher's aid. It is important, however, to provide some activities where the student can work alone and experience the satisfaction of individual achievement.

Trainable Mentally Retarded

Teaching Suggestions:

1. Use movement education directed to improving motor fluency.
2. Extend learning time periods.

3. Use fewer game terms and frequently reinforce those terms used. (If students must skip some developmental levels, the least valuable ones are oriented to team competition.)[11]

4. Shorten sentences.

5. Teach skills separately, one at a time.

6. Use colour coding when necessary.

7. Limit actual game participation time until endurance has been developed.

8. Be certain to teach and reinforce safety rules.

9. Use demonstrations by teacher or other students.

10. Whenever it is necessary, modify rules.

Behavioural Disorders

Although this student can participate in the regular physical education program, the teacher must be aware that the student may exhibit sudden changes in mood and attitude. For this reason, consistent procedures should be followed.

Teaching Suggestions:

1. Procedures should be agreed to by both teacher and students. Procedures, including arrival and departure plans, should be documented for all.

2. Invite the student to join in an activity several times, but do not force participation.

3. Minimize the time spent waiting for an activity to begin.

4. Avoid unsupervised periods of time.

5. Minimize "lining up" or "staying in line."

6. Modify the rules for the student to achieve success.

7. Teach students to relax.

8. Use direct and specific instructions, simply stated.

9. Provide a majority of the instruction on a one-to-one basis or within a small group.

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[11] Claudine Sherrill, Adapted Physical Education and Recreation: A Multi-disciplinary Approach, 2nd Ed. (Dubuque, Iowa: Wm. C. Brown Company, 1976), p. 68.

10. Provide immediate reinforcement for the desired behaviour.

11. Read facial expressions and body gestures to anticipate the future actions of the student.

12. Try to make the students feel secure so they do not feel threatened through their physical education experiences.

13. The student's attention span may be increased by removing distracting objects.

14. Equipment should be kept out of sight until it is to be used.

15. It may be necessary to separate students when inappropriate interaction among some members of the class threatens to disrupt the entire group. Preplanned and accepted methods of behaviour modification can be used effectively to control behaviour.

Adaptation is important regardless of the nature of [illegible] that the student exhibits. This adaptation allows the child to participate successfully. Wehman and Schleien, in Leisure Programs for Handicapped Persons, list the various types of adaptations that the teacher must consider.[12] These are:

1. material adaptation - equipment
2. rules or procedural adaptation
3. skill sequence adaptation
4. facility adaptation
5. lead-up activity adaptation

If one form of adaptation doesn't work, look to another area and try again.

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[12] Paul Wehman and Stuart Schleien, Leisure Programs for Handicapped Persons (Baltimore, Md.: University Park Press, 1981), p. 67.

PART IV

MODIFICATIONS IN SPECIFIC ACTIVITY AREAS

In the Introduction, physical education was defined as including the major activity areas of aquatics, dance, individual and group games, sports, and outdoor pursuits. In designing a physical education program for the student with special needs, it may be useful to classify activities within these broad categories.

AQUATICS

This important area of programming is relatively new to most educators. For the most part, Aquatic Instruction is a contracted service to the school provided by community-based staff and in community facilities. There are few schools in the province fortunate enough to have their own facility.

Research supports the value of swimming and pool activities for everyone. For the student with special needs, the benefits are often outstanding, because aquatics, perhaps more than any other aspect of the physical education program, appeals to persons with all types of handicapping conditions.

Some observations include the following:

- Warm water is essential, particularly for the student with orthopedic conditions (approximately 32°C).
- Swimming is excellent for the student with behaviour disorders because the warm water is relaxing and often provides a sedative effect.
- Therapeutic exercise under water is especially good for the nonambulatory student.
- A dyslexic student who could not manage a tricycle found that he/she was successful in the water.
- Amputees can become excellent swimmers.

Sherrill has developed an aquatics program with three levels: (1) Explorer; (2) Advanced Explorer; (3) Floater.[13] Concepts are introduced using a movement exploration approach and the teaching of pre-beginning skills.

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[13] Claudine Sherrill, Adapted Physical Education and Recreation: A Multidisciplinary Approach, 2nd Ed. (Dubuque, Iowa: Wm. C. Brown Company, 1976), p. 318-35.

Activities might include:

Explorer

- washcloth games
- sponge games
- parachute games
- blowing games
- self-testing activities

Advanced Explorer

- towel games
- body shapes
- ways to enter the water
- retrieving objects from the bottom of the pool

Floater

- horizontal to vertical positioning
- floating
- bobbing
- front to back positioning and vice-versa
- simple stunts in synchronized swimming

DANCE

All students love to dance. Everybody should have the opportunity to experience dancing and to dance as freely as it is possible for them to do. Dance can be adapted easily for individuals with a variety of special needs.

Some observations include the following:

- It may be necessary for the teacher to work with crutches or a wheelchair to obtain first-hand experience before working with students who may have ambulation (walking) difficulties.

- Dance can be a valuable experience for the student with hearing difficulties because he/she may feel the vibrations of the music with the feet.

- Deaf students can increase their verbal vocabulary through dance by "dancing the words."

- Dance encourages and develops the use of residual hearing in hearing impaired students and may also increase their oral fluency.

- The blind do not have superior auditory or tactile senses. These can be improved through the medium of dance.

- Dance appears to be an excellent medium through which to work with autistic students. (Autism is an emotional condition in which a person is dominated by subjective, self-centred trends of thought and behaviour.)

The program can include most types of dance, such as creative dance, disco dance, square dance, folk dance and modern dance.

When programming for the student with hearing difficulties, select activities where verbal communication is limited. Students may tend only to follow each other at first, but this is fine. When doing individual dances, have the students pound hard on the floor in rhythm so that the floor's vibrations may be felt. It is also important to know the decibel ranges in hearing for each individual so that appropriate levels of music may be used.

Suggested adaptations for the student who has visual problems are: using music with a strong beat; letting the more energetic students have an area of the floor to themselves with the quieter ones in another area; giving totally blind students a chance to explore the breadth and depth of a room; using tactile objects to elicit sensory responses (e.g., tasting or smelling) that students can express in dance.

Dance requires some effort on the part of the teacher to implement successfully. Students love to dance and it is important to include this activity in the program. A teacher's negative feelings about dance are easily communicated to the students. The teacher might want to improve his/her dance skills to gain the confidence necessary to project positively when teaching dance.

An excellent reference is Focus on Dance IX: Dance for the Handicapped, A.A.H.P.E.R.D., 1980.

WHILE OTHERS DANCED

While others danced I watched from my wheelchair pulled aside
And as I watched a vine grew inside strong and tough and
nurtured of care.
While they danced they began to lift their heels in glee
And their knees they raised in joy.
I danced with them
And felt the rhythm giving insight to my movement;
And knew this was the vine that grew as spirit.
I danced along and the elbows of my thoughts slanted akimbo.
The back of my thoughts arched like theirs,
So when the dance was over I could give
The leader the vine that grew of my dancing.
I knew that future dances must grow a vine in thought.

Tom Phillips[14]

A.A.H.P.E.R.D. has developed a list of activities which may be helpful in preparing students with neurological and orthopedic conditions for dancing. These are listed below under four categories: 1) General, 2) Walkers, 3) Crutches and Braces, and 4) Wheelchairs.[15] This organizational pattern should not preclude the integration of each of the categories.

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[14]Carla Taylor, Rhythm: A Guide for Creative Movement (Palo Alto, California: Peek Publications, 1975), p. 60. Reprinted with permission.

[15]Cordilia Graves Harris, "Dance for Students with Orthopedic Conditions," in Practical Pointers, Volume 2, No. 9 (A.A.H.P.E.R., 1979), p. 3-4.

General

- Place big left and right posters in the front and back of room.
- Have the students raise their right and left hands on cue.
- Explain proper ways to fall.
- Have students compile a list of things to remember when stopping and starting, such as their body positions, positions in relation to the space in the gym, or positions of their partners.
- Instruct students to take a scattered formation.
- Assist students who are very weak and incapable of voluntarily moving their own body parts by moving their arms for them.
- If some movements in a dance are too difficult, have students omit the move or just clap.
- On the chalkboard, list things to do while participating in a dance.

Walkers

- Instruct students to raise their right and left feet on cue if able.
- Instruct students who can walk without aids, but who experience balance problems, to be careful when stepping backwards, and allow them to use wheelchairs for this activity if this is the only way they can experience dance safely and freely.
- Allow students to practice walking around in a circle without touching individuals in front or in back of them.
- Have students make a small circle to the count of four, turning left, then right.
- Conduct slow motion races to music.
- Design a short dance to music using the following sequence:

  forward eight steps - backward eight steps
  forward four steps - backward four steps
  forward one step - backward one step

- Show students how to swing their partners safely.
- Select students with good balance to push students in wheelchairs who are unable to push themselves.
- Demonstrate correct ways to push wheelchairs.

Crutches and Braces

- Have students practice turning with control.

- Have students who are unable to make full turns, turn a little.

Wheelchairs

- Have students practice turning with control.

- Have students who are unable to use their feet, substitute another part.

INDIVIDUAL AND GROUP GAMES

Games, if handled correctly in particular situations with appropriate modifications, can provide many opportunities for the student to learn, cooperate, achieve success, accept failure gracefully, take turns, share and enjoy the game. Games can be highly organized with a specific goal in mind, or less systematic to promote a minimum amount of competition. Games which have minimal competition can be used for some students, while games with more rigid rules and expectations can be introduced to the child who may be able to handle them.

According to Evelynn Schurr, students must learn how to be self-directive in regulating the extent of their participation in physical activities. They must acquire knowledge and skill in a variety of games and activities in which they can participate alone and with other students in their leisure time.[16]

Cratty has found that the physically handicapped can participate in games successfully despite the problems which may be encountered in devising appropriate activities.[17] He states:

- Game participation fulfills social objectives.

- Games motivate the child to extend physical movement, thus improving movement capacities.

- Watching the movement of balls may reinforce visual perception.

- Severely retarded students should not be taught relays, nor be expected to participate in games which require a set formation.

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[16] Evelynn Schurr, Movement Experiences for Children (Englewood Cliffs, N.J.: Prentice-Hall Inc., 1980), p. 521.

[17] Bryant J. Cratty, Developmental Games for Physically Handicapped Children (Palo Alto, California: Peek Publications, 1969), p. 1-2.

- Group games should be introduced to the student with special needs, who may have been so protected by parents, teachers and friends that he/she has been denied these experiences.

- Because of the nature of competition, teachers must be cautious when introducing games.

The excitement of some games often can result in undesirable emotional consequences for some students. If there is a stress on competition, students who may have had limited positive outcomes or repeated failure in the past may tend to become "poor losers." Research indicates that students who lose are less likely to try harder the next time. It is, therefore, important to adapt game situations for successful participation.

Games must be modified carefully to meet the needs of the student who may not be able to participate fully in the regular physical education program. Using the "games analysis" concept designed by Morris, the program may be enhanced by developing and designing games that improve the motor abilities of all participants or by asking the student to adapt or modify existing games.

Game analysis involves the examination of the structure of a game. The game is broken down into components, and these components then can be adapted or modified. The following are steps in the analysis of a game.[18]

- Name the game.
- Explain how players move.
- State the number of players in a team.
- State the type of equipment to be used.
- List the rules.
- Explain reasons for playing the game.
- Observe the group patterns.

SPORTS

The Manitoba Physical Education Curriculum Guide[19] includes a chart by David Gallahue which outlines the three stages of "Developing Sports Skills," beginning in grades four to six and continuing through grade twelve.

1. Large Group Offense and Defense
2. Small Group Offense and Defense
3. Small Group Offense Only

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[18]G.S. Don Morris, How to Change the Games Children Play (Minneapolis, Minnesota: Burgess Publishing, 1980), p. 29.

[19]Manitoba Department of Education, K-12 Physical Education (Winnipeg: Manitoba Department of Education, 1981), p. 43.

Some of the recommended sports include*:

Large Group Offense and Defense	Small Group Offense and Defense	Small Group Offense Only
Team Handball	Badminton	Bowling
Floor Hockey	Table Tennis	Archery
Basketball	Tennis	Golf
Volleyball	Wrestling	Shooting
Broomball	Racquetball	
Soccer	Squash	
Softball	Handball	
Flag Football	Curling	
Speedball	Lawnbowling	
Bordenball	Karate	
Ringette	Judo	
Touch Football	Fencing	
Rugby		
Lacrosse		
Water Polo		
Hockey		

*Note appropriate grade levels in the curriculum guide.

For years, instruction in lead-up activities has been successful in the teaching of actual sports in the traditional setting. Thus, it is evident that extended and adapted lead-up activities may be necessary for the child with special needs.

Some observations include the following:

- Students who are blind or deaf have a basic problem in receiving appropriate information from the environment in which they must perform their task.
- Many students with special needs have difficulty in participating in sports with rapidly changing conditions.
- Regular rest periods may have to be introduced for students with limited activity tolerance.
- Games such as volleyball and softball were never intended to be played in the structured, official sense by the uncoordinated.
- Individual sports such as archery, bowling and golf, although not considered vigorous, place sufficient demands upon the body to ensure desirable development for children with special needs.[20]
- Physical fitness may be achieved through the participation in sports.

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[20]William F. Straub, The Lifetime Sports-Oriented Physical Education Program (Englewood Cliffs, N.J.: Prentice-Hall, 1976), p. 111.

Some adaptations for participation in other sports are:

1. Bowling

   a) Wheelchair bowling - All rules are the same but the actual physical approach is eliminated. Provide assistance for those having difficulty in retrieving the ball from the ball-return rack.

   b) Upper limb deficiencies - Use a bowling frame.[21]

   c) Bowling for the blind - Use a guide rail and "bowling buddy system."

2. Archery

   a) Many types of assistive devices, such as bow strings, below-elbow amputee adapters, and wheelchair bow stringers, have made it possible for students with a variety of special needs to participate in this activity.

   b) For the partially sighted, telescopic sights have been developed. For the totally blind, a one-to-one student-teacher ratio is recommended.

3. Badminton

   a) Wheelchair - Use extension handle racquets.

   b) Upper limb amputees - Use a service tray.

Most sports activities can be introduced to the student with special needs. It is important to remember that participation is the key and that how the game is played in the traditional sense is secondary. Adaptations will have to be made according to the student's capabilities.

OUTDOOR PURSUITS

Outdoor pursuits are conducted outdoors or beyond the confines of the school building. These activities have excellent carry-over value for the child in after-school activities and following graduation. Every effort must be made to include them in the total program. Some of the outdoor pursuits listed in the curriculum are:

Ice Skating	Horseback Riding	Track and Field
Orienteering	Cross-Country Skiing	Jampail Curling
Snowshoeing	Inuit Games	Backpacking
Climbing	Toboggan Races	Roller Skating
Cycling	Camping	Small Craft
Survival Skills		

(Appropriate grade levels are listed in the curriculum guide.)

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[21] William F. Straub, The Lifetime Sports-Oriented Physical Education Program (Englewood Cliffs, N.J.: Prentice-Hall, 1976), p. 114.

Many organizations now offer activities in the community setting that are specifically designed for children with special needs. In particular, horseback riding and downhill skiing provide a variety of positive experiences for children with all types of handicapping conditions. Both are available in Winnipeg at no cost to the handicapped individual, and could be resources well worth investigating in individual situations. These resources will be included in the equipment section.

PART V

NORMALIZATION, MAINSTREAMING; THE LEAST RESTRICTING ENVIRONMENT: WHAT SHOULD WE BE DOING FOR THE STUDENT WITH SPECIAL NEEDS?

Wehman and Schleien define normalization as: "the utilization of means which are as culturally normative as possible, in order to establish or maintain personal behaviours or characteristics which are as culturally normative as possible."[22]

It is important that students with a wide diversity of special needs be given maximum opportunity to be integrated into more normalized educational environments. This humanistic trend of educating the special needs individual has the potential to influence significantly future educational directions.

The following points, from Leisure Programs for Handicapped Persons, relate directly to the normalization process.[23]

1. Normalization is a multifaceted process designed to involve special needs people in everyday life experiences to the maximum possible extent.

2. The integration process, which stresses the interaction of the person with special needs with the normal person in natural environments of everyday living, is an important corollary of normalization.

3. Being "integrated" in certain settings does not preclude involvement in "special" or separate programs.

4. Successful integration depends on the involvement of small groups or individuals in existing programs or services.

5. Integration does not mean grouping people with varying special needs and handicapping conditions together.

6. The integration process requires planning; it is not synonymous with "dumping."

Bruce McClenaghan has suggested that educating the student with special needs in the least restrictive environment remains relatively simple in theory, but difficult to implement. Simply registering the student in the regular school program may be an easy implementation, but is it meeting the educational

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[22]Paul Wehman and Stuart Schleien, Leisure Programs for Handicapped Persons (Baltimore: University Park Press, 1981), p. 2.

[23]Ibid., p. 6.

needs of the student? In many instances, the student with special needs is placed in the regular physical education program without an appropriate motor assessment. This may be detrimental to the student's development if there are no planned remedial activities in the regular program.

The concept of normalization does not mean that all students with special needs should be integrated into the regular physical education setting. It does, however, suggest that the student be placed carefully in an environment that is as normal as possible. The ultimate goal is to ensure successful participation in that setting.

Integration places some additional demands on the teacher. The greater the ability range within the regular physical education class, the more difficult it is for the physical educator to teach. Even the most highly skilled teachers might find this task difficult.

It is necessary to provide appropriate placement of students with special needs, within the integrated, segregated, or flexible settings. We must consider which situation(s) can provide optimal opportunities for the student to succeed. It is essential to be sensitive to the needs of the student so that he/she will be comfortable in the selected environment. The majority of students with special needs can be mainstreamed in physical education, but some motor-impaired students may require special placement until they can participate successfully in the regular program. The Office of Special Education, United States Education Department, 1976, lists some of the physical education placements which could be considered appropriate:[24]

- Regular Physical Education with Non-Handicapped Students
- Regular Physical Education with Adaptation
- Specially Designed Physical Education
- Physical Education in Special Setting

Situations which have proven to be less than successful have related to:

- teacher attitude
- inadequate placement
- overcrowding in the classroom
- teacher training
- inadequate facilities
- lack of teaching supports; e.g., aides

The children have been the "losers" in these situations.

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[24] Adapted Physical Education Guidelines (Washington, D.C.: June, 1976), p. 26.

Normalization has had positive benefits in programming for the student with special needs. However, more emphasis must be placed on preparing physical education personnel to implement the concept.

Douglas Williamson states:

> The ultimate aim of all teachers is that the special needs student in their care shall be accepted as full members of society. There is no easy way of bringing this about, and attempts to integrate children in physical education may bring about problems. If we overlook these problems and look at the benefits the student may gain by having opportunities for contact (coming together), involvement (formal game or activity) and interaction (spontaneous, shared recreational activity), we will be providing educational opportunities which are in the best interests of everyone.[25]

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[25]Lillian Groves, Physical Education for Special Needs (Cambridge: Cambridge University Press, 1979), p. 137.

PART VI

SCREENING

In order to ensure that the student with special needs benefits from the physical education program, it is essential for the teacher to make an appropriate assessment prior to determining program needs and modifications.

Three types of assessment instruments may be used in addition to general observation by the teacher:

- screening tests
- check-off lists
- evaluation instruments

Screening Tests

Denver Development Screening Test (DDST)--approximately 30 minutes--is used for students up to six years of age. Students perform various tasks appropriate to his/her age relating to:

- personal-social ability
- fine motor ability
- gross motor ability
- language ability

Check-Off Lists

Check-off lists are another approach to determining the student's developmental abilities, and can be prepared by the teacher or taken from various published sources. The teacher observes the student in activity and checks off whether or not he/she has a mature movement pattern for the skill or parts of that skill.

Sherrill's Checklist for Evaluation of Walking[26]

Directions: Observe the student walking on several different terrains or surfaces (even or uneven), uphill, downhill, and on a level surface. Consider the eleven sets of alternate descriptions and check the one of each set that represents the student's level of performance. Until about age 4 years, most checks will be in the left-hand column. After age 4 the normal child exhibits mature walking. Use findings to write specific behavioral objectives.

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[26]From Claudine Sherrill, Adapted Physical Education and Recreation: A Multidisciplinary Approach, 2nd Ed. (Dubuque, Iowa: Wm. C. Brown Company Publishers, © 1976, 1981), p. 135. Reprinted with permission.

Check one	Development or Immature Walking	Check one	Mature Walking
	1. Forward lean a. from ground b. from waist and hips		1. Good body alignment
	2. Wide base of support with heels 5-8 inches from line of progression		2. Narrower base of support with heels 2-3 inches from line of progression
	3. Toes and knees pointed outward		3. Toes and knees pointed straight ahead
	4. Flat-footed gait		4. Heel-ball-toe transfer of weight
	5. Excessive flexion at knee and hip joints		5. Strong push-off from toes
	6. Uneven, jerky steps*		6. Smooth and rhythmical shift of body weight with minimal up-and-down movement of body
	7. Little or no pelvic rotation until second or third year. Body sways from side to side		7. Minimal rotatory action of pelvis (short persons will have more than tall ones)
	8. Rigidity of upper torso		8. Compensatory rotatory action of torso and shoulders inversely related to pelvic rotation
	9. Outstretched arms, also called high guard position		9. Arms swing freely and in opposition with legs
	10. Relatively short stride. In preschool children, the distance from heel to heel is 11-18 inches.		10. Greater length of stride dependent upon length of leg. In the average adult man, the distance from heel to heel is 25-26 inches
	11. Rate of walking stabilizes at about 170 steps per minute		11. Rate of walking decreases to about 115-145 steps per minute

* Jerkiness may be caused by a flat-footed or shuffle gait or by excessive stride lenghth.

Evaluation Instruments

Once the student has been identified by the screening and checklist approaches, he/she then must be evaluated by a team of specialists, including the physical educator.

Examples of Evaluation Tests:

1. Bruininks-Oseretsky Test of Motor Proficiency
2. Stott-Moyes-Henderson Test of Motor Impairment

Other tests of physical fitness, motor development and ability, and perceptual-motor development are recommended by Dr. Joseph Winnick. His analysis is listed below:[27]

Test	Components	Age and Population	General Area
AAHPER Special Fitness Test	Arm and Shoulder Girdle Strength Efficiency of Abdominal and Hip Flexor Muscles Speed and Agility Explosive Muscle Power Skill and Coordination Cardiovascular Efficiency	Mildly Retarded 8-18 yrs.	Physical Fitness
	Same elements as above plus: Height, Weight, Sitting Bob and Reach, Hopping, Skipping, Target Throw and Tumbling Progression	Moderately Retarded 6-21 yrs.	Physical Fitness
AMP Index	Level of Awareness, Manipulation of Environment, Movement, Posture and Locomotion.	Profoundly Retarded 2½-17½ yrs.	Perceptual Motor Ability
Buell's Adaption of AAHPER Test for Blind	Same as AAHPER Special Fitness plus: strength, power and coordination.	Blind: 8-18 yrs.	Physical Fitness

[27]Ernie Bundschuh et al., Project Dart, Adapting Physical Education Activities (University of Georgia, 1980), p. 21-22.

Test	Components	Age and Population	General Area
Cratty Six Category Gross Motor Test	Body Perception, Gross Agility, Balance, Locomotor Agility, Ball throwing and tracking	EMR (educable mentally retarded) 5-20 yrs. TMR (trainable mentally retarded) 5-24 yrs. Down's Syndrome 5-22 yrs.	Motor Development and Ability
Cratty Body Image Test for Blind	Body Planes Body Parts Body Movements Laterality Directionality	Blind: 8-19 yrs.	Perceptual Motor Ability
Denver Developmental Screening Test	Gross Motor Function Language Fine Motor-Adaptive Personal-Social	General Population 2 weeks-6 yrs.	Perceptual Motor Ability
Frostig Developmental Test	Eye-Motor Coordination Figure-Ground Constancy of Shape Position in Space Spatial Relationships	General Population 4-8 yrs.	Perceptual Motor Ability
Godfrey-Kephart Checklist	Movement Patterns		Motor Deveopment and Ability
Hayden Fitness Test	Strength & Endurance Power, Strength and Coordination Flexibility and Strength Flexibility, Strength, and Endurance Power Flexibility Organic Fitness	EMR: 8-17 yrs. TMR: 8-17 yrs.	Physical Fitness
Move, Grow, Learn Survey (Not standardized. Based on observation.)	Balance Coordination Strength Body Awareness Creative Movement Flexibility	General Population 6 yrs. old and up	Physical Fitness, Motor Development, Perceptual Motor Development

Test results seldom provide all the answers or understanding of the developmental abilities and limitations of the student. Through teacher observation, understanding of normal growth and development, and with test results, we are able to make valid judgements of each student's needs. Once this is done, the program for the student can be developed.

PART VII

FORMS, EQUIPMENT AND RESOURCES

Forms

The first necessity is a referral form from family physician, attending specialist, or school medical personnel, with the diagnosis of the student's functional capacity or exercise tolerance level, an indication of areas of the body for which activity should be increased, minimized or eliminated, and recommendations for specific corrective exercises or remedial exercises.

This form enables the physician to provide diagnostic information about the condition and make general recommendations to establish the framework or limits of the program, and offers a prognosis about the individual and the condition. Physical education personnel are responsible for completing details of the program, choosing activities and determining appropriate methods.

Other forms which may be developed could be:

- a form letter to parents describing all procedures and inviting input from them;
- an individualized program form which outlines in specific detail the program strategies which may be best for each student, including objectives, program strategies, modifications, adaptation and evaluation.

Example:

ANY CITY PUBLIC SCHOOLS
SCHOOL HEALTH DEPARTMENT
PHYSICAL EDUCATION DIVISION[28]

Physical Education Medical Referral Form
ASAN #1313-1975

Dear Dr. _____:

(This space can be used for information about provincial/divisional physical education requirements, rationale of adapted physical education, objectives and benefits of local programs, organization and administration of local classes, purposes and uses of this form and related areas to improve understanding and communication among physicians, physical educators, parents, and others concerned with and involved in the education, health, and welfare of the student. Procedures for returning the form can be included in this section or at the end of the form.)

John J. Jones, M.D.
Director, School Health Department

George T. Smith, Supervisor
Division of Health, Physical Education and Athletics

STUDENT INFORMATION

NAME _____ SCHOOL _____
HOME ADDRESS _____ City_____ State_____ Zip_____
HOME TELEPHONE ( ) _____ Grade & Section _____

CONDITION

Brief description of condition

Condition is ☐ permanent ☐ temporary

Comments _____

If Appropriate:

Comments about student's medication and its effects on participation in physical activities

Student may return to unrestricted activity _____,19___

Student should return for reexamination _____,19___

FUNCTIONAL CAPACITY

☐ Unrestricted - no restrictions relative to vigorousness or types of activities

☐ Restricted - Condition is such that intensity and types of activities need to be limited (check one category below)

☐ Mild - ordinary physical activities need not be restricted but usually vigorous efforts need to be avoided

☐ Moderate - ordinary physical activities need to be moderately restricted and sustained strenuous efforts avoided

☐ Limited - ordinary physical activities need to be markedly restricted

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[28] Adapted Physical Education Guidelines (Washington, D.C.: 1976), p. 47-49. Reprinted with permission.

ACTIVITY RECOMMENDATIONS

Indicated body areas in which physical activities should be minimized, eliminated, or maximized.

	Maximized	Minimized	Eliminated	Both	Left	Right	Comments Including Any Medical Contraindications to Physical Activities
Neck							
Shoulder Girdle							
Arms							
Elbows							
Hands & Wrists							
Abdomen							
Back							
Pelvic Girdle							
Legs							
Knees							
Feet & Ankles							
Toes							
Fingers							
Other (specify)							

REMEDIAL

☐ Condition is such that defects or deviations can be improved or prevented from becoming worse through use of carefully selected exercises and/or activities. The following are remedial exercises and/or activities recommended for this student. (Please be specific).

_____

_____

_____

_____

Signed _____ M.D.

Address _____

_____

Telephone No. ( ) _____

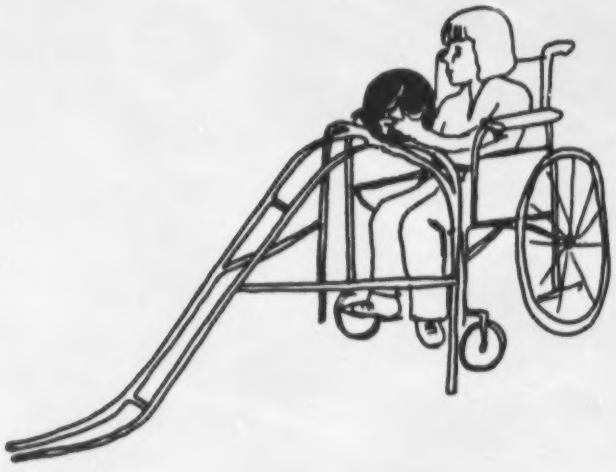
Date _____ 19 ___

Equipment

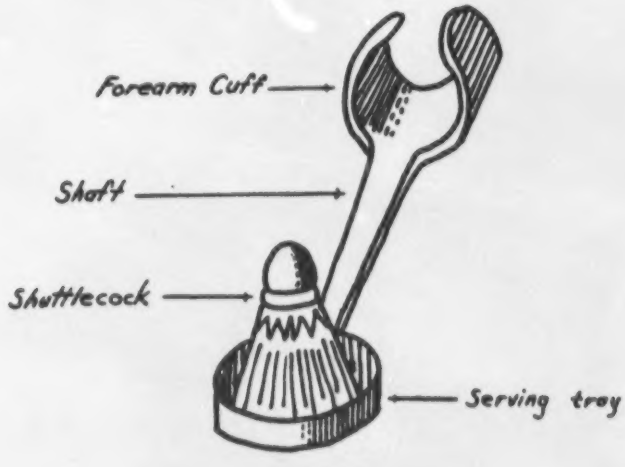
Many of the supplies and equipment from the regular physical education program may be used; however, it may be necessary to make adaptations for the equipment to become functional. (Note Sports Section)

The following are examples of specific modifications employed for students with limited or no movement in upper or lower body areas. It is difficult to state which equipment is best to use in a particular situation; however, once the student has been assessed, equipment can be adapted to ensure maximal opportunity for successful participation in a safe environment.

1. For persons with limited or no upper limb function - Bowling

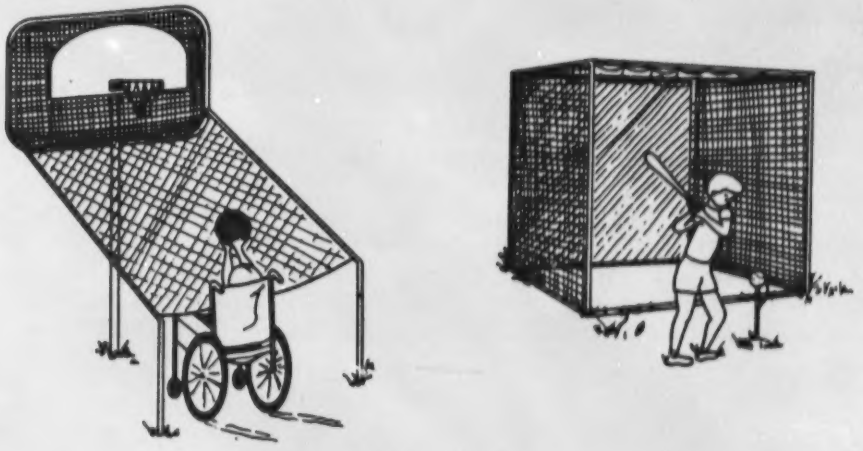


2. Service Tray for Upper Limb Amputees



3. Outrigger Ski Device for Lower Limb Amputees

4. Adapting equipment (such as attaching a string to the ball) and using backstops increase easy recovery of ball and maximize time devoted to practicing a skill.[29]



[29]From Claudine Sherrill, Adapted Physical Education and Recreation: A Multidisciplinary Approach, 2nd Ed. © 1976, 1981 Wm. C. Brown Company Publishers, Dubuque, Iowa, p. 100. Reprinted with permission.

Other modifications can be made for individual activities:

Archery	-	Blind	- Place pegs in the ground for stance.
Running	-	Blind	- Use ropes for guidance.
Swimming	-	Blind	- Use ropes to designate swimming lanes.
Softball	-	Blind	- Use sand for base paths. - Raise bases above base paths.
Track	-	Blind	- Use different textures at the finish line.
Swimming	-	All Handicapping Conditions	- Be certain pool floor has a nonslip bottom.

Resources

Three specific groups have been established for children and adults with handicapping conditions:

1. Manitoba Riding Association for the Disabled

   For information contact: Mr. Barney Martin
   Telephone: 885-2577

   The Manitoba Riding Association for the Disabled, Inc., was formed to provide a rehabilitative riding program for victims of polio, cerebral palsy, multiple sclerosis, blindness, strokes and cerebral trauma due to accidents or other injuries. The program also hopes to provide similar benefits to persons who are emotionally disturbed or mentally retarded.

2. Canadian Association for Disabled Skiing

For information contact: Doug Allen or Gord Henke
130 Cree Crescent
Winnipeg, Manitoba
Telephone: 889-9202

Objectives:

- To assist in the development of provincial and territorial disabled skiing associations, in order to promote the physical and mental rehabilitation of disabled persons through healthy recreation and competition;

- To acquire and disseminate all relevant information concerning disabled skiers through research and publicity;

- To assist in both the development and research of equipment necessary for the disabled skier;

- To develop plans and programs as they relate to rehabilitation, training, instruction, recreation and competition for the disabled skier.

3. Manitoba Amputees Sport and Recreation Association

For information contact: Colleen MacKinnon
Telephone: 668-8528

Activities:

Track and Field	Skiing
Volleyball	Basketball
Shooting	Weightlifting
Swimming	Table Tennis
Gymnastics	

Membership is open to any responsible, physically disabled Manitoba resident who can benefit from active participation in physical, creative and educational athletic or recreational activities, programs or competitions, and to any Manitoban who contributes on a regular basis to the purposes and objectives of the Association.

Other groups and associations may provide programming assistance to schools. For further information, contact:

Provincial

Laurie Beachell
Coordinator, Recreation for the Handicapped
304 - 379 Broadway Avenue
Winnipeg, Manitoba
R3C 3N4 Telephone: 944-4400

City of Winnipeg

Killa Seagroves
Superintendent of Adaptive and Special Programs
Parks and Recreation
2799 Roblin Boulevard
Winnipeg, Manitoba
R3R 0B8 Telephone: 885-1500, Ext. 176

Other Resources

Manitoba Wheelchair Sport and Recreation Association
Gerry Terwin
Telephone: 338-9876

Manitoba Blind Sport Association
Telephone: 786-5641, Ext. 207

Manitoba Special Olympics
171 Donald Street
Winnipeg, Manitoba
Telephone: 943-2403

Joan Hayden-Luck
Red Cross - Adapted Aquatics
226 Osborne Street N.
Winnipeg, Manitoba
Telephone: 772-2551, Ext. 191

PART VIII

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